Universitat Autònoma de Barcelona

2018/2019

Multidisciplinary Application of One Health in Emerging Zoonoses and in Special Situations

Code: 43758
ECTS Credits: 9

Degree	Type	Year	Semester
4315915 Zoonoses and One Health	OB	0	2

Contact

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Use of languages

Principal working language: spanish (spa)

Prerequisites

As a requirement for admission you must have one of the Degrees listed below:

Graduate, Bachelor or Diploma in the field of Health Sciences (Veterinary Science, Medicine, Nursing, Pharmacy, Science and Food Technology, Animal Science and Health, Biomedicine, Psychology) or Life Sciences (Biology, Biochemistry, Biotechnology, Zoology, Botany, Ecology, Biodiversity, Environmental Sciences, Agronomic Engineering, Forestry) or equivalent

Objectives and Contextualisation

The objectives of this module will be focused on:

- Entomology bases and epidemiological status and risk assessment of emergent arboviruses and other new viruses and parasitosis.

- Principal zoonosis in immunosuppressed populations.

- Risk assessment, management and communication of zoonosis in situations of Public Health Alerts, bio treats and in low/income countries.

Skills

- Act in accordance with the code of ethics of the profession.
- Communicate and justify conclusions clearly and unambiguously to both specialist and non-specialist audiences.
- Continue the learning process, to a large extent autonomously.
- Describe and interpret the dynamics of emerging zoonoses and their interfaces human-wildlife wild-animal-vector-environment.
- Integrate knowledge and use it to make judgements in complex situations, with incomplete information, while keeping in mind social and ethical responsibilities.
- Manage and report on the risk of zoonoses in special situations, health emergencies or biological threats.
- Solve problems in new or little-known situations within broader (or multidisciplinary) contexts related to the field of study.
- Work alone or in a multidisciplinary team within the area of study, showing critical reasoning and creativity, and the ability to analyse, interpret and synthesise the data generated.

Learning outcomes

1. Assess the risk of zoonosis transmission in movements of people between countries.
2. Assess the risk of zoonosis transmission in the cross-border transport of animals, plants and their derivatives.
3. Comply with the profession's code of practice in special political, economic, social and cultural contexts (health emergencies, low-income countries or immunosuppressed populations).
4. Determine the most suitable healthcare intervention in accordance with the social, economic and environmental context in which it is to be developed or applied.
5. Evaluate the effect of climate change on the redistribution of new diseases.
6. Foresee and control the risk of contracting a zoonosis.
7. Formulate the most suitable control measures to minimise risk from emerging or exotic zoonoses in developed countries.
8. Formulate the most suitable control measures to minimise the risk of zoonoses in health emergencies or biological threats.
9. Formulate the most suitable control measures to minimise the risk of zoonoses in immunosuppressed populations.
10. Formulate the most suitable control measures to minimise the risk of zoonoses in low-income countries.
11. Know the importance of vectors as transmitters of diseases between continents and at all levels: humans-animals-plants-environment.
12. Obtain suitable bibliographic information to make risk assessments for emerging or exotic zoonoses.
13. Perform critical analyses of emerging zoonosis risk situations or in special situations, solve problems and make decisions.
14. Present and communicate surveillance or control plans for emerging or exotic zoonoses or in special situations.
15. Rapidly establish efficient containment protocols to face biological threats and alerts.
16. Resolve formulated cases by working independently.
17. Understand the special conditions that arise in patients with a weakened immune system.
18. Work alone or in a multidisciplinary team within the area of study, showing critical reasoning and creativity, and the ability to analyse, interpret and synthesise the data generated.

Content

-Introduction and risk analysis of exotic and emergent zoonoses

-Passengers transit and risk of importing new zoonoses

-Transit and trade of animals, plants and derivated-products

- Zoonosis in immunocompromised patients

- Zoonosis control under health alerts or biological threats

- Zoonosis control in low-income developing countries

Methodology

	Lectures	Tutorials/supervised	Self-learning
Hours	**62**	**21**	**142**
% on-site class	**100%**	**15%**	**0%**

Activities

Title	Hours	ECTS	Learning outcomes
Type: Directed			
Lectures, seminars, practices and lab visits	62	2.48	2, 1, 17, 11, 15, 14, 12, 7, 8, 10, 9, 6, 13, 5, 18, 4
Type: Supervised			
Case resolution tutorials	21	0.84	3, 2, 1, 15, 14, 12, 7, 8, 10, 9, 6, 13, 16, 18, 4
Type: Autonomous			
Teamwork and self-learning	142	5.68	2, 1, 17, 11, 15, 12, 7, 8, 10, 9, 6, 13, 5, 16, 4

Evaluation

A. The assessment of the students will be done through a combination of criteria:

- Attendance to lectures and participation in the activities carried out individually or in groups during those sessions (10%). Non justified absences for a given activity are not accepted. In case of a justified absence (illness, etc.) the qualification of this activity will be considered but restrictions may apply.

- Attendance and participation in the laboratory practical lectures (20%). All activities and exercises will be assessed. The acquisition of laboratory skills and competences will be assessed as well.

- Self-learning and oral presentation (40%). The assessment will take into account the quality and clarity of the presentation and the knowledge demonstrated during the discussion of the subject.

- Synthesis exam (30%). It will include questions on all the topics covered throughout the module. A minimum grade of 4/10 will be required.

B. In order to pass this module, compulsory attendance is required at a minimum of 80% of the on-site class hours of the module. The final average grade of the module must be equal to or greater than 5 out of 10.

C. In the case of failing to pass, the students will have an additional opportunity consisting in a synthesis exam in which they must to obtain at least 5 out of 10 points.

Evaluation activities

Title	Weighting	Hours	ECTS	Learning outcomes
Attendance and active participation in the laboratory practices	20%	0	0	16, 18
Attendance in class and participation	10%	0	0	2, 1, 17, 11, 15, 6, 5, 18, 4
Final exam	30%	0	0	3, 2, 1, 17, 11, 15, 14, 12, 7, 8, 10, 9, 6, 13, 5, 16, 18, 4
Self-learning activities and oral exposition	40%	0	0	3, 2, 1, 17, 11, 15, 14, 12, 7, 8, 10, 9, 6, 13, 5, 16, 18, 4

Bibliography

-Libro digital del World Bank : People, Pathogens and Our Planet (Volume 1: Towards a One Health Approach for Controlling Zoonotic Diseases) Link:

http://siteresources.worldbank.org/INTARD/Resources/PPP_Web.pdf

-Revista digital de la OIE: Rev. sci. tech. Off. int. Epiz., 2014, 33 (2), 569-581. Emerging zoonotic viral diseases. Link:

http://www.oie.int/doc/ged/D14089.PDF